

AMENDMENTS TO THE CLAIMS

Please amend claims 1, 9–12, 17, 24, and 30–32 and add new claims 33–41 as indicated in the listing of the claims, below.

LISTING OF CLAIMS:

1. *(Currently amended)* A method of fermenting milk ~~by means of a purine or thymidine auxotrophic bacterial culture which is capable of being metabolically active in said milk, the method~~ comprising adding a cultured
(i) ~~isolating a~~ purine or thymidine auxotrophic bacterial strain;
(ii) ~~propagating the isolated bacterial strain in a medium wherein the strain is capable of replicating to obtain a bacterial culture of said strain,~~
(iii) ~~adding the thus obtained bacterial culture to the~~ milk and keeping the milk under conditions where the bacterial culture is able to acidify the milk, ~~but is not capable of DNA replication,~~
~~whereby, if the milk is contaminated with a bacteriophage, the milk is acidified to a pH lower than milk acidified using a wild type parent strain of said purine or thymidine auxotrophic bacterial strain.~~

Claims 2–8 *(Cancelled)*.

9. *(Currently amended)* A method according to claim 1 wherein the purine or thymidine auxotrophic bacterial culture strain is a strain of a species selected from the group consisting of *Lactococcus* spp., *Lactobacillus* spp., *Leuconostoc* spp., *Pediococcus* spp., *Streptococcus* spp., *Propionibacterium* spp., *Bifidobacterium* spp., *Staphylococcus* spp., *Micrococcus* spp., *Bacillus* spp., *Enterobacteriaceae* spp. *Actinomycetes* spp., *Corynebacterium* spp. and *Brevibacterium* spp.

10. *(Currently amended)* A method according to claim 9 wherein the purine or thymidine auxotrophic bacterial culture strain is a purine or thymidine auxotrophic strain culture of *Lactococcus lactis*.

11. *(Currently amended)* A method according to claim 1 wherein the **bacterial culture added to the milk includes the bacterial strain at a concentration in the range of cultured purine or thymidine auxotrophic bacterial strain is added to the milk at a concentration between 10^5 to and 10^9 CFU/ml or g of the milk.**

12. *(Currently amended)* A method according to claim 1 where the purine or thymidine auxotrophic bacterial **culture strain** comprises a genetically modified strain transformed with a plasmid including **a DNA sequence selected from the group consisting of encoding the soluble part (F1) of the membrane bound (FOF1 type) H⁺-ATPase or a portion of F1 exhibiting ATPase activity, said DNA being derived from *Lactococcus lactis* subsp. *cremoris* having the sequence stated in SEQ ID No. 7, *Lactococcus lactis* subsp. *lactis* having the sequence stated in SEQ ID No. 8, *Streptococcus thermophilus* having the sequence stated in SEQ ID No. 9, *Phaffia rhodozyma* having the sequence stated in SEQ ID No. 10, and *Trichoderma reesei* having the sequence stated in SEQ ID No. 11.**

Claims 13–16 (*Cancelled*).

17. *(Currently amended)* A method according to claim 1 wherein the **purine or thymidine auxotrophic bacterial culture strain** **comprises a bacterial strain which is capable of increasing is a strain that increases** the size of the **its** cells without mitosis **when cultured in milk.**

Claims 18–23 (*Cancelled*).

24. *(Currently Amended)* **The method of claim 1 wherein the cultured purine or thymidine auxotrophic bacterial strain. A method of manufacturing a milk product comprising adding a culture composition comprising a purine or thymidine auxotrophic lactic acid bacterium to milk and keeping the thus inoculated milk under conditions where the lactic acid bacterium is able to acidify the milk, but is not capable of DNA replication, subject to the limitation, that the lactic acid bacterium does not include a any of the strains strain selected from the group consisting of strain DN101, DN102, DN103, DN104 and DN105, whereby, if the milk is contaminated with a bacteriophage, the**

milk is acidified to a pH lower than milk acidified using a wild-type parent strain of said purine or thymidine auxotrophic lactic acid bacterium.

Claims 25–27 (*Cancelled*).

28. (*Previously presented*) A method according to claim 1 wherein the bacterial strain is *Lactococcus lactis* strain DN105 deposited under the accession number DSM 12289.

29. (*Previously presented*) A method according to claim 1 wherein the bacterial strain is *Lactococcus lactis* strain MBP71 deposited under the accession number DSN12891.

30. (*Currently Amended*) A method for keeping the capability of a bacterial strain to ferment milk even in the presence of a bacteriophage, the method comprising:

(i) **isolating a purine or thymidine auxotrophic bacterial strain; and**

(ii) adding a cultured the purine or thymidine auxotrophic bacterial strain to **said** milk, and keeping the milk under conditions where the purine or thymidine auxotrophic bacterial strain is able to ferment the milk, **but is not capable of DNA replication;**

whereby, if the milk is contaminated with a bacteriophage, the milk is acidified to a pH lower than milk acidified using a wild-type parent strain of said purine or thymidine auxotrophic bacterial strain.

31. (*Currently amended*) A method of preparing a dairy flavouring and/or a product for cheese flavouring comprising, adding a cultured purine or thymidine auxotrophic bacterial strain culture to a dairy flavouring and/or a product for cheese flavouring starting material, **said bacterial culture being capable of being metabolically active in said dairy flavouring and/or product for cheese flavouring starting material, the bacterial culture made by a method comprising:**

(i) **isolating a purine or thymidine auxotrophic bacterial strain;**

(ii) **propagating the isolated purine or thymidine auxotrophic bacterial strain in a medium wherein the isolated bacterial strain is capable of replicating to obtain the bacterial culture of said isolated bacterial strain, and**

~~(iii) adding the purine or thymidine auxotrophic bacterial culture to the dairy flavouring and/or product for cheese flavouring starting material~~ and maintaining the thus-obtained inoculated dairy flavouring and/or product for cheese flavouring starting material under such conditions that the bacterial strain of the bacterial culture is metabolically active, ~~but is not capable of DNA replication,~~

~~whereby, if the dairy flavouring and/or product for cheese flavouring starting material is contaminated with a bacteriophage, the starting material is fermented to produce more dairy flavouring and/or product for a cheese flavouring than a starting material fermented using a wild type parent strain of said purine or thymidine auxotrophic bacterial strain.~~

32. *(Currently amended)* A method according to claim 9 wherein the purine or thymidine auxotrophic bacterial culture strain is a strain of *E. coli*.

33. *(New)* The method of claim 1, wherein the purine or thymidine auxotrophic bacterial strain is incapable of replicating in milk.

34. *(New)* The method of claim 1, further comprising propagating the purine or thymidine auxotrophic bacterial strain in a medium in which the strain is capable of replicating prior to adding the cultured purine or thymidine auxotrophic bacterial strain to milk.

35. *(New)* The method of claim 1, wherein the milk further comprises a bacteriophage.

36. *(New)* The method of claim 1, whereby the milk is acidified to a pH less than or equal to 5.0.

37. *(New)* The method of claim 1 which produces a dairy flavour, a product for cheese flavouring, a food product, or a feed product.

38. *(New)* The method of claim 31, wherein the purine or thymidine auxotrophic bacterial strain is incapable of replicating in the dairy flavouring and/or product for cheese flavouring starting material.

39. (New) The method of claim 31, further comprising propagating the purine or thymidine auxotrophic bacterial strain in a medium in which the strain is capable of replicating prior to adding the cultured purine or thymidine auxotrophic bacterial strain to the dairy flavouring and/or product for cheese flavouring starting material.

40. (New) The method of claim 31, wherein the dairy flavouring and/or product for cheese flavouring starting material further comprises a bacteriophage.

41. (New) The method of claim 31, whereby the dairy flavouring and/or product for cheese flavouring starting material is acidified to a pH less than or equal to 5.0.